

C. Remarks

The claims are 1-37, with claims 1-4 being independent. Claims 1-3 and 17-30 have been withdrawn from consideration. Claim 4 has been amended to clarify the invention. Support for this amendment may be found throughout the specification and the drawings, particularly at page 29, lines 17-21. No new matter has been added.

Reconsideration of the claims is expressly requested.

Claims 4-16 and 31-37 stand rejected under 35 U.S.C. § 102(e) as being allegedly anticipated by U.S. Patent No. 6,475,704 B1 (Iwasaki). The grounds of rejection are respectfully traversed.

Prior to addressing the merits of rejection, Applicants would like to briefly review some of the features and advantages of the presently claimed invention. The present invention is directed to a method of manufacturing a diffractive optical element by transferring a mask pattern to a workpiece. This method comprises defining a shape of a vertical portion of the diffractive optical element by using a first mask and defining the shape of a slant portion of the diffractive optical element by transferring the shape of the surface of a second mask in a processing region determined by the first mask. The second mask has a surface that is obliquely tilted. The shape of the slant portion of the diffractive optical element is determined by the transferred shape of the surface of the second mask. Accordingly, this method allows production of a diffractive optical element having an improved, almost ideal blazed shape.

Iwasaki discloses a method in which masks are used to form a diffractive optical element. The Examiner has alleged that Iwasaki shows a mask that is tilted obliquely to several steps in Figs. 15(14) and 15(20), which steps were deemed a slanted

portion. Specifically, the Examiner has alleged that aluminum films 125 and 127 correspond to the second mask in the presently claimed method. Applicants respectfully disagree.

In Fig. 15(14) of Iwasaki, aluminum film 125 has a slanted surface, which is obliquely tilted. This film is provided on substrate 81 and chromium film 82 by forming an aluminum layer of a certain thickness by sputtering. Thus, the aluminum layer directly reflects the shape of substrate 81 and chromium film 82.

The unnecessary portion of the aluminum film is removed by polishing to form a structure shown in Fig. 15(15), in which the aluminum film is not tilted (see col. 14). It is this shape of the aluminum film that is used as a portion of a mask to etch the substrate, as shown in Fig. 15(18). Applicants respectfully submit that it is clear that the slanted shape of the surface of aluminum film 125 in Iwasaki is never transferred to substrate 81. To the contrary, the slanted shape of the aluminum layer in Fig. 15(14) in Iwasaki is formed due to the steps already present in the substrate.

The same is true for aluminum layer 127 in Fig. 15(20). This aluminum layer is polished (Fig. 15(21)) to remove the slanted portion and patterned (Fig. 15(23)) prior to being used as a mask for etching the substrate (Fig. 15(24)). Accordingly, it is clear that the slanted shape of the aluminum layer 127 in Iwasaki is never transferred to the substrate.

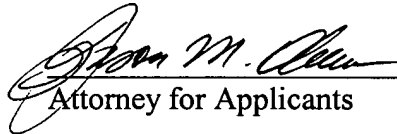
In conclusion, Applicants respectfully submit that Iwasaki does not disclose or suggest transferring the slanted shape of the surface of the second mask to the workpiece, as presently claimed. Wherefore, Applicants respectfully request that the

outstanding anticipation rejection be withdrawn and that the present case be passed to issue.

This Amendment After Final Rejection should be entered, because it places the case in allowable form. Alternatively, it places the case in better form for a possible appeal.

Applicants' undersigned attorney may be reached in our New York office by telephone at (212) 218-2100. All correspondence should continue to be directed to our address given below.

Respectfully submitted,


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